

Work Order ID 116408

September-15-14 7:41:03 AM

116408

Page 1

Item ID: D350-591-312

Revision ID:

Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14 Start Qty: 4.00

Required Date: 4/22/14 Req'd Qty: 4.00

Reference:

Accept

N900040100

Setup Start ***NS1***

Stop ***NS2***

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3272

Rev B

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and type labels as per PPP D350-591-312 CHG001

110

0.00

110

Large Fab

Large Fab

Memo

0.00

Large Fab

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod

3-Grind End Plate flush

B128316
3128956

Non EUPROTER
002

4

DAS
38
9-89

14-10-25

4 CC 14-9-16

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Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Heli-Access-Step™ RH

Stop ***NS2***

Start Date: 4/15/14 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/22/14 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
120									
QC	Memo	0.00							DAS 24 9-89
Quality Control									
130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.00							DAS 24 9-89
Quality Control									
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00							
Hand Finishing									

4 14-09-30 DMC

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Item ID: D350-591-312

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Heli-Access-Step™ RH

Stop ***NS2***

Start Date: 4/15/14 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/22/14 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC7-Inspect Chemical Conversion Coat	0.00							
150						4			38 9-89 149-30
QC	Memo	0.00							
Quality Control									
180	Large Fab	0.00							
180									
Large Fab	Memo	0.00							
Large Fab	1-Assemble Leg Assembly as per Dwg D3272.								
	2-Leave one rivet out until welding is complete.								
	3-Bevel Aft end for welding								
	4-Inspect for foreign object as per QSI 024								
	5-Weld Aft End Plate as per QSI 004 & Dwg D3272 A/RAluminum Rod <u>B128956</u>								
	6-Grind End Plate flush								
	7-Install last rivet as per Dwg.								

DMC
H4300

H CC 14-10-1

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[illegible]

Work Order ID 116408

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Item ID: D350-591-312 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Heli-Access-Step™ RH
 Start Date: 4/15/14 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 4/22/14 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
220	<i>m 129808</i>					<i>4</i>	<i>0</i>	<i>14-10-2</i>	<i>DAS 34 9-89</i>
Powdercoat	Memo	0.00							
Powder Coating	START TIME <i>2:15</i>								
	OVEN TEMPERATURE: <i>320°</i>								
	FINISH TIME: <i>3:15</i>								
230	Wing Walk as per dwg QSI005 4.4 Batch <i>M 130289</i>	0.00							
230									
HandFinish	Memo	0.00							
Hand Finishing									
240	QC3- Inspect Part Finish	0.00							
240									
QC	Memo	0.00							
Quality Control									

x4RH *0* *all n/10/0x*

(4) *DAS 38 9-89 14-10-7*

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Item ID: D350-591-312

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 4/22/14 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Pick Kit	0.00							
250									
Packaging	Memo	0.00							
Packaging									
260	QC4- 100% Inspect kits for completeness	0.00							
260									
QC	Memo	0.00							
Quality Control									
270	Packaging	0.00							
270									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPPD350-591-312								
	Location: <u>087</u>								

ND OCT 24 2014

QC

4

OCT 24 2014

DAS 38 9-89 14-10-24

DAS 06

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Item ID: D350-591-312

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/22/14 Req'd Qty: 4.00

4


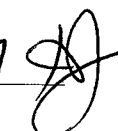
Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

14/10/27  10.27

Picklist Print

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Work Order ID: 116408

116408

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

Comments:

IPP Rev:A04.03.22New issue KJ/RF

IPP Rev:B 07-06-09 Added D3572-1 JLM

IPP Rev:C 08-04-02 ECN1163 DD verified by:EC

IPP Rev:D 08-04-08 ECN1164 DD verified by:eC

IPP Rev:D

fixe route seq in bom DD 10.04.28 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3272-1

Manufactured

No

110

Each

3.0000

1

4

D3272-1

Step

DML 14-09-15

Location

Loc Qty

Loc Code

WA003

3

123916

2

124001

1

D3067-1

Manufactured

No

110

Each

351.0000

1

4

D3067-1

End Plate

CC 14-9-16

Location

Loc Qty

Loc Code

WA003

351

101785

67

102686

14

117776

120

119290

150

D3219-1

Manufactured

No

110

Each

125.0000

2

8

D3219-1

Plate

CC 14-9-16

Location

Loc Qty

Loc Code

WA003

125

114934

26

115339

99

Picklist Print

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Page 2

Work Order ID: 116408

116408

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

D3066-1 Manufactured No

180 Each 86.0000 2 8

D3066-1

Spacer

**

DMC 14-09-30

Location

Loc Qty

Loc Code

WA003

86

106302

7

115868

39

115869

40

MS20600-AD4W4

Purchased No

180 Each 2,253.000 16

MS20600-AD4W4

Rivets

**

DMC 14-09-30

Location

Loc Qty

Loc Code

ST310

2253

125577

215

M128899

2038

D3065-041

Manufactured No

180 Each 12.0000 1 4

D3065-041

Step Leg Assembly

**

DMC 14-09-30

Location

Loc Qty

Loc Code

WA003

12

102830

6

109447

2

113075

2

121478

2

Picklist Print

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

D3067-1

Manufactured No

180

Each

351.0000

1

4

D3067-1

End Plate

**

CC 14-10-1

Location

Loc Qty

Loc Code

WA003

351

101785

67

102686

14

117776

120

119290

150

4x

AN3-35A

Purchased No

250

Each

73.0000

2

8

AN3-35A

Bolt

DAS

38

9-89

**

DAS

28

9-89

OCT 22 2014

Location

Loc Qty

Loc Code

FG

10

122800

10

ST348

63

m129934

63

250

Each

283.0000

2

8

D3235-1

Manufactured No

D3235-1

Mounting Lug

DAS

38

9-89

**

DAS

28

9-89

Location

Loc Qty

Loc Code

ST519

283

102818

4

105939

17

108670

43

114441

54

116383

100

116384

13

116385

52

6x

2x

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Shop Packet Print

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Picklist Print

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

D3278-041

Manufactured No

250 Each

69.0000

D3278-041

Support Assembly

DAS
38
9-89

**

DAS
28
9-89

OCT 22 2014

Location

Loc Qty

Loc Code

ST521

39

102349

1

114169

31

114940

2

121431

5

ST523

30

123337

30

125102

NAS1149D0463J

Purchased

No

250 Each

5,132.000

NAS1149D0463.J

WASHER

DAS
38
9-89

**

DAS
28
9-89

OCT 22 2014

Location

Loc Qty

Loc Code

CA

485

M129682

485

ST277

4647

113706

1

16941

8

M126221

20

M127813

6

M127904

16

M128591

44

M128995

1500

M129390

3052

64X

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Picklist Print

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

NAS1149D0563J

Purchased

No

250

Each

1,791.000

4 16

DAS
28
9-89

NAS1149D0563.J

Washer

DAS
38
9-89

OCT 22 2014

Location

Loc Qty

Loc Code

GA

125

m125807

125

ST510a

1666

m126319

98

m128257

1568

AN5-36A

Purchased

No

250

Each

131.0000

2 8

DAS
28
9-89

AN5-36A

Bolt

DAS
38
9-89

Location

Loc Qty

Loc Code

ST336

131

M126105

1

M127410

7

M127460

23

M130325

100

D2618

Manufactured

No

250

Each

151.0000

2 8

DAS
28
9-89

D2618

Bushing

DAS
38
9-89

Location

Loc Qty

Loc Code

ST008A

151

103863

3

114872

1

123045

100

97780

47

8x

Picklist Print

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

D2230-3

Manufactured No

250 Each

322.0000

4 16

D2230-3
Mounting Lug
DAS
38
9-89

**

DAS
28
9-89

OCT 22 2014

Location

Loc Qty

Loc Code

FG

7

109344

4

89045

3

ST519

315

108668

1

109344

2

114151

1

114921

4

115583

64

116378

143

116379

100

D2856-400

Manufactured No

250 f

196.0000

1.2 5

D2856-400
Abrasion Strip 4" Wide (Per Foot)
DAS
38
9-89

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST426

196

117887

196

123583

cut (2) D2856-400-720 as per dwg

MS21042L3

Purchased No

250 Each

2,651.000

2 8

MS21042L3
Nut
DAS
38
9-89

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST307

2651

123900

934

M127410

11

M127831

41

M128401

42

M128754

1623

8x

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Picklist Print

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

AN4-13A

Purchased

No

250

Each

716.0000

8 32

AN4-13A

Bolt

D
38
9-89

**

DAS
28
9-89

OCT 27 2014

Location

Loc Qty

Loc Code

CA

2

m129682

2

FG

20

122808

20

GA

14

m125709

14

ST345

400

m130325

400

ST515

280

121652

4

m127432

36

m127817

22

m128739

218

32x

MS21042L5

Purchased

No

250

Each

576.0000

2 8

MS21042L5

Nut

DAS
38
9-89

**

DAS
28
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST307

576

125684

8

m127304

1

m127813

497

m128810

7

m129472

63

130358

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Work Order ID: 116408

Parent Item: D350-591-312

Parent Item Name: Heli-Access-Step™ RH

116408

D350-591-312

Start Date: 4/15/14

Required Date: 4/22/14

Start Qty: 4.00

Required Qty: 4.00

MS21042L4

Purchased

No

250

Each

4,213.000

8

32

MS21042L4

DAS

38

Locknut

9-89

**

DAS

28

9-89

OCT 22 2014

Location

Loc Qty

Loc Code

ST007

12

121444

12

ST307

4201

111827

2

126275

5

m126015

12

m126275

27

m127255

63

m127376

9

m127813

831

m128300

69

m128798

683

m129472

1000

m129934

1500

32x

NAS1149D0363J

Purchased

No

250

Each

1,518.000

4

16

NAS1149D0363J

Washer

DAS

38

9-89

**

DAS

28

9-89

Location

Loc Qty

Loc Code

GA

7

124392

7

ST276

5

m123441

5

ST510a

1506

m128429

1506

1.30358

DAS

38

9-89

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DAS

28

9-89

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124573x3

125731x1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
--	--	---	--



DESIGN <i>GP</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>H</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED

070604-11

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

B

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

116408MS
524804911

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube <input type="checkbox"/></td> <td style="width:15%;">Crosstube <input type="checkbox"/></td> <td style="width:15%;">Water Jet <input type="checkbox"/></td> <td style="width:15%;">Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input type="checkbox"/>									
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

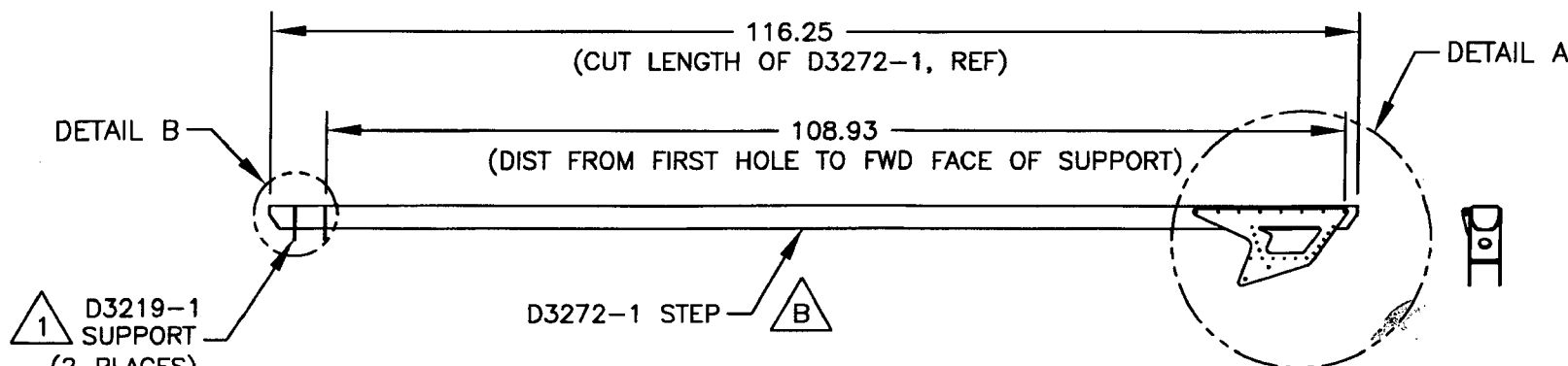
FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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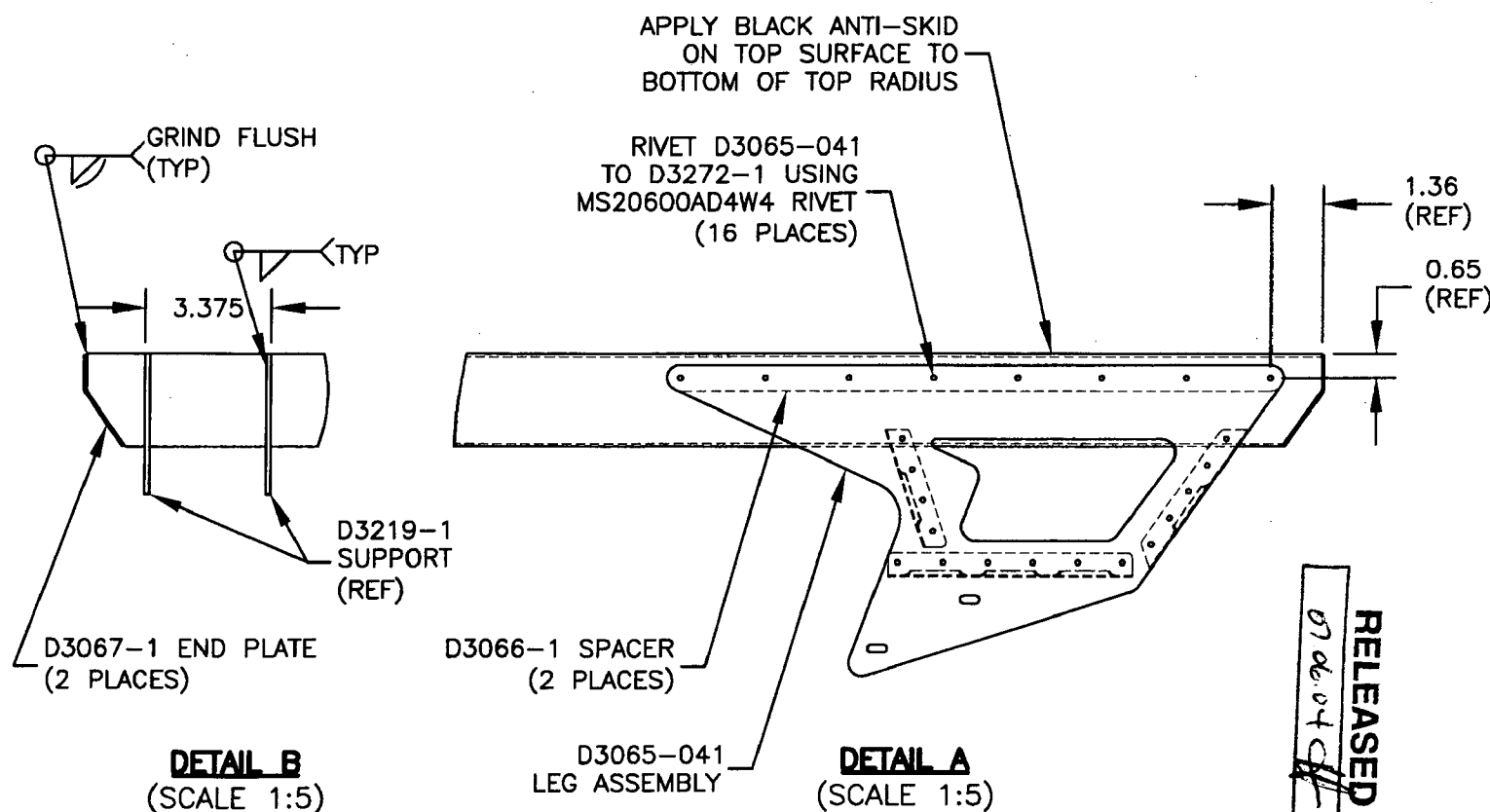


DESIGN	90	DRAWN BY	JR	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. B
CHECKED	CE	APPROVED	JR	DRAWING NO. D3272	SHEET 2 OF 3
DATE	07.05.18	TITLE	STEP ASSEMBLY, HI LONG	SCALE	1:20

RELEASED
07.06.04



D3272-041 STEP ASSEMBLY (LH. SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design <input type="checkbox"/>									
Doc/Data <input type="checkbox"/>									
Equip/Tooling <input type="checkbox"/>									
Handling/Pre <input type="checkbox"/>									
Material <input type="checkbox"/>									
Operator <input type="checkbox"/>									
Offset/Setup <input type="checkbox"/>									
Process <input type="checkbox"/>									
Supplier <input type="checkbox"/>									
Training <input type="checkbox"/>									
Transport <input type="checkbox"/>									
Unapproved <input type="checkbox"/>									

FAULT CATEGORY

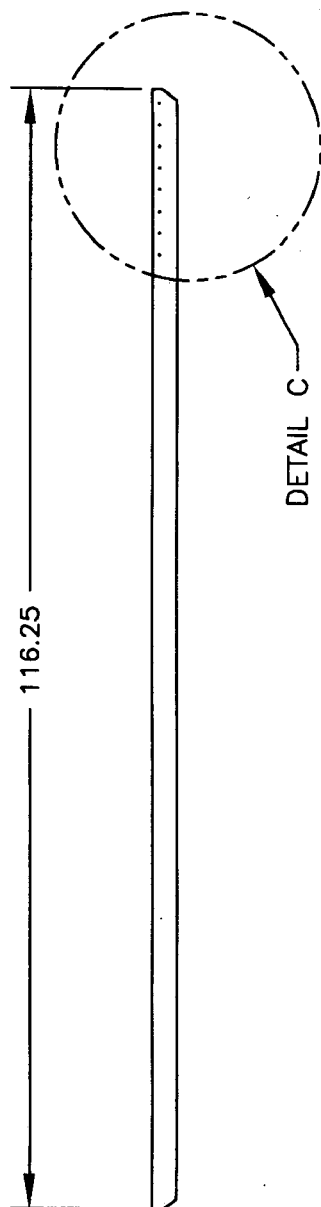
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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DESIGN <i>GP</i>	DRAWN BY <i>JB</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE 1:20

RELEASED

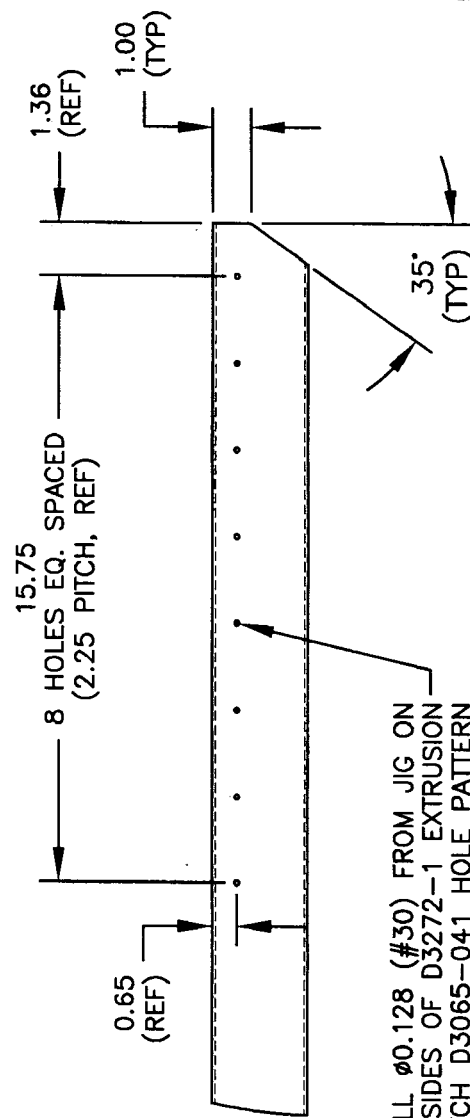
07.06.04 *[Signature]*



DETAIL C

B D3272-1 STEP

(MAKE FROM D2622-120 STEP EXTRUSION)



DETAIL C
(SCALE 1:5)

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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DART AEROSPACE LTD.

DAS
38
9-89

D350-591
Page 23 of 23

Qty -211	Qty -212	Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X								D350-591-211	<i>Heli-Access-Step</i> ™, Long Step – High Skid, LH
	X							D350-591-212	<i>Heli-Access-Step</i> ™, Long Step – High Skid, RH
		X						D350-591-213	<i>Heli-Access-Step</i> ™, Short Step – High Skid, LH
			X					D350-591-214	<i>Heli-Access-Step</i> ™, Short Step – High Skid, RH
				X				D350-591-215	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, LH
					X			D350-591-216	<i>Heli-Access-Step</i> ™, Short Step – Low Skid, RH
						X		D350-591-311	<i>Heli-Access-Step</i> ™, Long Step – High Skid, LH
							X	D350-591-312	<i>Heli-Access-Step</i> ™, Long Step – High Skid, RH
1								D3070-041	STEP ASSEMBLY (HIGH-LONG, LH)
	1							D3070-042	STEP ASSEMBLY (HIGH-LONG, RH)
		1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
			1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
				1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
					1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
						1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
							1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
4	4							D2182B035	RUBBER CUSHION
		2	2	2	2			D2230-1	MOUNTING LUG
		2	2	2	2	4	(4)	D2230-3	*MOUNTING LUG
8	8							D2274	RADIUS BLOCK
						2	(2)	D2618	*BUSHING
4	4	4	4	4	4			D2732-030	CUSHION
2	2	1	1	1	1	2	(2)	D2856-400-720	ABRASION-STRIP
2	2							D3064-1	CLAMP
1	1							D3079-041	SUPPORT ASSEMBLY
4	4							D3080-1	CLAMP
						2	(2)	D3235-1	*MOUNTING LUG
						1	(1)	D3278-041	*SUPPORT ASSEMBLY
2	2	2	2	2	2	2	(2)	AN3-35A	*BOLT
10	10	2	2	2	2			AN4-11A	BOLT
		4	4	4	4	8	(8)	AN4-13A	*BOLT
						2	(2)	AN5-36A	*BOLT
4	4	4	4	4	4	4	(4)	AN960JD10	WASHER
20	20	12	12	12	12	16	(16)	AN960JD416	*WASHER
						4	(4)	AN960JD516	*WASHER
2	2	2	2	2	2	2	(2)	MS21042L3	*NUT
10	10	6	6	6	6	8	(8)	MS21042L4	*NUT
						2	(2)	MS21042L5	*NUT
						1	(1)	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 21 for installation of the DSI 9410-011 Kit.

Work Order ID 116408

September-15-14 7:41:03 AM

116408

Page 1

Item ID: D350-591-312

Revision ID:

Item Name: Heli-Access-Step™ RH

Start Date: 4/15/14

Start Qty: 4.00

4

Required Date: 4/22/14

Req'd Qty: 4.00

4

Reference:

Accept

N9000040100

Setup Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3272

Rev B

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control - USB or Paperwork

Photocopy bluefile and type labels as per PPP D350-591-312 CHG

110

110

Large Fab

0.00

Large Fab

Memo

0.00

Large Fab

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT8719, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod

3-Grind End Plate flush

B128316
B128956

4k CC 14916